

SEASONAL NUTRITION, FOOD HABITS AND HEALTH CARE DECISION-MAKING IN MOKHOTLONG

(A Preliminary Report)

by

DAVID A. HIMMELGREEN and NANCY Y. ROMERO-DAZA

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About the Authors

David Himmelgreen and Nancy Romero-Daza are two Ph.D students in anthropology at the State University of New York at Buffalo who did research in Mokhotlong from March 1991 to March 1992. The topic of Himmelgreen's dissertation is "The Impact of Seasonality and Food Habits on Maternal-Child Nutritional Well-Being and Health among Highland Basotho". Romero-Daza's dissertation is entitled "Health Care Seeking Behavior in Mokhotlong, Lesotho".

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David A. Himmelgreen and Nancy Y. Romero-Daza

I. OVERVIEW

This project consisted of two interrelated studies that used the same population in Mokhotlong District. The first study focused on how seasons and food habits impact on maternal-child nutritional status and health. The second study centred on how people use different sources of health-both traditional and western-when they fall ill.

The project, including start up time, the pretest, and prospective data collection lasted one year. Prospective data were collected for 248 days or 35.4 weeks in five villages (Bafali, Ha Mojakisane, Nthllohetsane, Salang, and Thabang) all located within 14 km of the Mokhotlong Camp. Additionally, we surveyed the Camp for comparative purposes as this administrative centre presents some unique socio-economic characteristics.

Three surveys were made on 250 randomly chosen households; each interview was spaced from 2.5 to 3 months apart to capture the seasonal effects. In each household the mother (or caretaker) and one child younger than six years were surveyed. Two types of households were included: those in which only an adult female lives with children (female-headed households) and those that include more than one adult of either sex (multi-parent households).

Only 215 (86%) households completed the three interviews. The main reason for the loss of 35 households was the movement of mothers and/or children out of their villages due to family or job-related circumstances. Some of the reasons given for the move include: job change, job transfer, going to live with husband (boyfriend), child going to live with relatives, husband (boyfriend) chasing away wife (girlfriend), and wife (girlfriend) leaving because of abuse by husband (boyfriend).

For purposes of analysis the five villages and the administrative camp will be considered as a unit. However, we will also examine differences among villages and household types. This project should be considered a pilot study. In the future, we hope to conduct a similar project in more isolated villages. Then, a comparison can be made between these two surveys.

II. THE IMPACT OF SEASONALITY AND FOOD HABITS ON NUTRITIONAL STATUS AND HEALTH

A. Objectives

This study had four primary objectives which include: 1) providing more sensitive indicators of at-risk households for policy makers to use when making food security policy; 2) examining the seasonal nature of food security; 3) providing baseline data on the relationship between maternal activities, food behaviours and seasonal nutritional status; and 4) gaining a better understanding of bio-behavioral coping strategies among populations that live in ecologically and climatically stressful environments.

B. Types of Data Collected

1. Dietary Data

- (a) Quantitative Intake: Food intakes and the frequency of consumption of food were collected seasonally for both the mother (or caretaker) and child using 24 hour food recalls and weekly food frequency intakes, respectively. Our goal here was to document seasonal changes in diet and look at these changes

in terms of different types of households (e.g., wage earners versus non-wage earners, female headed households versus multi-parent households). In addition, we will look at household food diversity seasonally, and compare these data with our assumption that the more varied the diet is the better nutritional status and health will be.

- (b) Quality of Diet: Here the goal was to look at aspects of food behaviour related to seasonal diet. Data were collected on seasonal food preparation patterns (food ingredients, additions to meals, and how food is cooked) and seasonal fuel use. We also collected data on social support in the household with respect to the care and feeding of children. Information on the use of wild vegetables was documented (wild foods are widely used in Mokhotlong). Finally, we asked about knowledge and use of iodized salt (many women report that they do not know the difference between iodized and non-iodized salt and that they use any salt available at the shop).
- (c) Food beliefs: The goal was to collect information on food beliefs associated with health, food taboos, and the life cycle (i.e., pregnancy, breast feeding, and weaning). Data were also collected on foods that are prescribed or withheld during illness (e.g., diarrhoea).

2. Nutritional Status

Our goal here is to examine seasonal changes in anthropometric measures in women and children. Associations or lack of associations between mothers (or caretakers) and their children will be examined. We will try to examine these changes by looking at maternal activities,

socioeconomic conditions, diet diversity, and child illness. Additionally, seasonal changes in fat distribution (extremity versus trunk), muscularity, and child growth (i.e., stunting and wasting) will be analyzed to try to define factors that more clearly define risk for the household.

Basic indices for weight, stature, arm circumference, and skinfolds (subscapular and triceps) have been collected. Each child will be compared to his/her age cohorts by using Z-score transformations. This will be done to generate an internal form of comparison. Data on weight/age, stature/age, and weight/height will be compared to Mokhotlong data and data from other districts in Lesotho. We will also compare the Basotho children to the NCHS growth curves for an international comparison.

3. Health Data

Data on maternal-child health were collected through retrospective and prospective interviews. Data on

- (1) major maternal and child illnesses,
- (2) illness episodes (since last previous visit),
- (3) record of immunization (using the Bukana), and
- (4) reproductive history were collected. On initial inspection, we have found a strong seasonal oscillation in the number of episodes of diarrhoeal infection among children, which have peaked during the summer months.

4. Socio-economic Indicators and Social Support

The following types of data have been collected:

- (1) household demography (age, sex, education);
- (2) household economics (wage labour and other income-generating activities - selling goods at market, joala, livestock, produce, lobola, mafisa - and the seasonal nature of these activities);
- (3) agriculture and livestock (ownership of fields, gardens, work on cooperative fields and gardens, sharecropping, work on relatives' fields, ownership of fruit trees, livestock ownership, herding, etc.);
- (4) household resources (housing type and material possessions).

C. *Preliminary observations*

Although it is still too early to provide a definitive analysis on the relationship between seasons, diet, nutritional status, and health status, we do see some patterns emerging, which may or may not hold-up in the final analysis. Nonetheless, we feel that it would be beneficial to report on some of these patterns at this point in time. They are as follows:

1. After the first visit, covering the period from August through October 1992, it was found that 39.5% of the children in our sample had low weight for age (below the 5th percentile of NCHS standards); 47.1% had low stature for age, and 19.4% had low weight for stature. Although at this moment we do not have the exact figures for the remaining visits, we observe fewer cases of low weight/age, stature/age and weight/stature for the period from November through January.
2. During the final visit (February to April) we observed that a very high number of women and children were losing weight, and many children were not growing

or growing very little. We also noticed a high increase in reports of diarrhoea among both women and children.

3. There appears to be a negative association between women and children who lose weight between successive measures in households where these women are heavily involved in agriculture and who appear to be more economically disadvantaged.
4. There appears to be a negative association between women who lose weight and children who gain weight in households heavily involved in agriculture but economically better off. Moreover, in these households where extended family reside, social support may be contributing to better feeding practices which enhance child nutritional status.
5. Our assumption that all female-headed households are at a nutritional disadvantage when compared to multi-parent households does not appear to hold. Richer female-headed households appear to be doing as well with respect to nutritional status as multi-parent households.
6. Many women reported that they are periodically hungry, and that they are concerned about the upcoming harvest which, in all likelihood, will be very poor due to the drought-like conditions. We have observed clear seasonal changes, not necessarily in terms of quantity consumed, but rather in terms of diversity of foods. This variation may be the result not only of food availability, but also of seasonal maternal work

patterns (e.g., people eat fewer meals in winter when the days are short).

III. HEALTH CARE DECISION MAKING

A. Objective

The main goal in this section of the project was to gather data on health care decision making, that is, on actions taken by people when dealing with illnesses and on the factors that determine such decisions. For instance, when a person falls ill will he opt for home remedies, will he attend a clinic or a hospital, will he consult a traditional healer? Understanding health care seeking behavior is of special importance in settings like Mokhotlong in which a great variety of health resources are available. Our sample population has access to the Government Hospital, St. James clinic (run by a Catholic mission), Village Health Workers, traditional healers, bible readers, and home treatments. In addition, a small portion of the population also has access to private doctors and to South African hospitals. Variety of factors appear to influence people's actions when dealing with illness episodes. Among these, the most frequently mentioned in our interviews are the following:

- (a) Practical considerations such as cost of therapy, actual distance to source of care, length of treatment, type of medicine given etc.
- (b) Ideological factors among which the most important appears to be the nature of the disease (i.e. whether caused by natural agents, breach of taboos, witchcraft, etc.)
- (c) Previous experiences with the different resources. These include effectiveness of treatment and interpersonal relations with health care providers.

In addition, demographic characteristics such as age, socio-economic status, level of education, and ethnic and religious affiliations might have an

impact on health care seeking behavior at the individual level.

B. Data Collection

Data were collected at two different levels ATTITUDINAL and BEHAVIORAL. The first type of data was collected by directly asking people about their attitudes, beliefs and knowledge of the different sources of care (e.g., what do Bible Readers do? Are they effective? Would you use them?). The second type of data was collected by asking people whether any member of their household had been sick during the previous months, and if so, to provide a detailed description of the way in which the illness was treated as well as of the reasons for such choices. An estimated total of over a 1000 illness episodes was collected during our three visits.

C. Preliminary Observations

Data on the management of actual illness episodes will be statistically analysed to determine the role played by each of the above mentioned variables in actual patterns of choice. What follows is a preliminary description of our observations on people's perceptions and use of the various health care resources.

- (a) Self Treatment: This category includes the use of over-the-counter medicines, traditional medicines, ORS, and the use of enemas. While an extensive Knowledge and use of herbal plants is reported by only a few women, there appears to be a group of about 10 plants that are widely used by the majority of households to treat mild health problems. Among these the most commonly used are lengana and phate-ea-ngaka for the treatment of colds and cough; mohalakane for stomach problems; and khoara for diarrhoea. Similarly, a small number of over-the-counter medicines -including panado, compral, chief, and golden

products - is extensively used by almost all the households surveyed. In addition, the use of medicines that have been left over from previous visits to the hospital or the clinic is reported by a small number of women. Interestingly, while individuals claim to throw such medicines away after one or two weeks from their prescription data, the report of actual illnesses shows that leftover medicines are kept for periods of up to one year.

The majority of women reported an extensive use of enemas especially for the treatment of constipation, fever, and diarrhoea in children and of bile (dizziness, nausea), lower back pain, and gonorrhoea in adults. In general salt, sunlight soap, vinegar or dettol are used for enemas; only in a very few cases is the use of herbs reported. Finally, most of the households report knowledge of ORS for the treatment of diarrhoea. However, there appears to be a lot of misinformation about its function dosage. In general people expect ORS to stop diarrhoea (only a few women mentioned that its main function is rehydration), and to do so in a very short period of time. (usually 1/4 of a cup three times a day).

- (b) Village Health Workers (VHWs): In general VHWs appear to be one of the less-used resources of health care in our sample population. Only a few women interviewed reported any knowledge of VHWs and even fewer reported using their services. This low use results from either lack of information about the location of VHWs in the village, or to negative attitudes towards them. The lack of "formal education " on the part of the VHW, the limited range of problems they are able

to treat, and the lack of adequate supplies to provide basic care are the most commonly mentioned factors for low utilization.

- (c) Bible Readers (BRs): Bible readers of both Zion and Apostolic denominations are extensively used by most households (regardless of religious affiliation). In general, people consider BRs capable of curing both physical and non-physical illnesses (including mental illnesses, interpersonal problems and witchcraft caused illnesses). However, the report on actual choices shows that they are mostly used in cases of non-physical problems. Interestingly, the small group of people who do bring physical problems to BRs do so while using some other source of care (e.g., hospital, traditional healer) at the same time. The BRs' exclusive use of blessed water, which does not interfere with any medications, appears to facilitate this simultaneous use.
- (d) Traditional Healers: Traditional healers are used by many households in spite of the fact that their fees are considered excessive, and that their explanation of illness in terms of witchcraft is seen as a potential generator of conflict among community members. People consider traditional healers capable of curing most physical problems, an area in which their effectiveness is often seen as comparable to that of western doctors. In addition, traditional healers are consulted for problems such as being outside the sphere of western medicine. Among these, senyeha, a disorder caused by breach of sexual taboos during the breastfeeding period, presents an interesting case since it

appears to correspond to marasmus. Similarly, sejeso - believed to be caused by witchcraft - is sometimes identified by respondents themselves as TB.

- (e) Government Hospital: The attitude towards the hospital appears to be very ambivalent. While people recognize the hospital as a very effective source of care, they also express considerable dissatisfaction. By far the most common complaint presented relates to the personal relationship between patients and nurses, most of whom are perceived as being rude and unsympathetic towards the patients. In addition, the screening process by which only the most serious cases are seen by doctors is interpreted by patients as a lack of concern on the part of the hospital staff. The use of English to record diagnoses in the Bukana is a source of frustration for many women who do not know the language and thus might not understand what's wrong with them or their children. Finally, there are complaints about the amount of medicines provided and about the fact the injections are not frequently prescribed.

- (f) St. James Clinic: In spite of the fact that St. James clinic does not provide services such as obstetrics or hospitalization, it is considerably more attractive to patients and staff, the fast service which results from the relatively small number of patients seen at the clinic, and the amount of medicine provided are highly appreciated by most of the women interviewed. However, difficulties of transport limit the use of the clinic by many of our respondents.

- (g) Private Doctors: As mentioned before, a small section of the study population has easy access to private doctors and other health care institutions in either Maseru, Leribe or South Africa. These options are only open to those people who are economically well-off and who can cover the extra-expenses involved in transportation and in private doctors' higher fees. The fact that patients are examined by a doctor himself, the length of the examination, and the prescription of a variety of medicines - including injections are the most positive aspects mentioned by those who use this source of care.

IV. AIDS SURVEY

In addition to the sub-projects described above, a small survey on AIDS was carried out with the same study population. Interviews were conducted with the sample households on their knowledge, attitudes and beliefs on AIDS. In this regard, it was found that most of the people have at least some basic knowledge about the disease, especially about the major mode of transmission and the fact that it cannot be cured. However, there appear to be some widespread misconceptions especially with regard to prevention of the disease and to ways in which it spreads. While most people mentioned the avoiding multiple partners as the safest way of preventing AIDS, quite often family planning methods other than condoms (specifically the pill, the loop, and the injection) were mentioned as adequate prevention. With regard to infection from person to person the sharing of clothes, dishes, and toilets, and walking over a place where an AIDS person has urinated were very often mentioned as means of spreading the disease.

The individuals interviewed (all of them were female) were also asked about their knowledge and use of condoms. While a considerable number of them had heard and seen condoms before, not too many did actually know how to use them. As part of our project we distributed condoms donated by the hospital and instructed

women on their use. Not surprisingly our respondents reported a very limited use of condoms. By far the most common reason for this was the fear that the condom would remain inside the vagina and would have to be surgically removed. In addition, a great many women reported that their partners opposed the use of condoms, and a small number reported personal dislike for them.

Finally, the issue of educating children on AIDS was brought up for discussion. An overwhelming majority of respondents considered it important to teach children about the disease. However, only a few said they themselves would be willing to teach their children about it, and only when they reach the age of 18 or 20. In general, women think that teachers are the best qualified people to teach children about AIDS, and none opposed the idea of having such topics discussed as part of the school curriculum.

V FURTHER REMARKS

The results presented here are only preliminary. A series of small documents as well as the final report will be forwarded to the interested agencies in the upcoming months.

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Appendix

COMMONLY USED HERBS IN MOKHOTLONG HOUSEHOLDS

Nancy Romero-Daza

The following are the most frequently used herbs in Mokhotlong households, as reported by 250 families in Mokhotlong camp and five surrounding villages: Bafali, Ha Mojakisane, Ntholehetsane, Salang and Thabang.

Hloenya (*dicoma anomala*). Commonly used as an infusion for stomach pains; in enemas for constipation and lower back pain; and ground and mixed with cold water for diarrhea. An infusion made with the roots is used for "bile", or combined with musapel (*Indigofera tristis*) for the treatment of high blood pressure. It is also considered good for increasing appetite.

Khoara-Ea-Balisa (*Builbine narcissifolia*). The roots are used for the treatment of bile and stomach aches as an infusion. With an usual dosage of 1 cup a day. It can also be used in enemas (two times, one day only) in cases of "seso" (gonorrhea).

Khoena/Kuena (*Mentha aquatica*). Used as an infusion for colds and coughs; sugar is often added to cut the bitter taste of the herb. Sometimes it is mixed with sehalahala (*Aster discoideus*). Inhaling the vapour of water in which koena has been boiled helps relieve stuffy nose and other cold symptoms.

Lengana (*Artemisia afra*). Lengana leaves are boiled and used either as a drink or as an inhalant to treat cough, colds, or fever caused by the flue. It is also used as an enema for fever and stomach pains. As an infusion it is given in very small quantities - usually 1 tablespoon twice a day - and is often sweetened with sugar especially when given to children.

Matalenyana (n.a.) The leaves and stem are dried, crushed, and used as snuff to treat headaches. The crushed leaves can also be added to cold water and given orally for the treatment of diarrhea. Matalenyana is mostly used for the treatment of "kokoana" which very often affects children (tiredness, sunken eyes, red and enlarged anus and vagina, red nose and ears with small "wounds"). The dried leaves are made into powder and put in the anus. A little cold water is added to the crushed leaves, a very small amount of this water is then poured in the eyes, ears, nose, and mouth.

Mohalakane (*Aloe ferox*) Mohalakane is considered excellent to rid the body of "Impurities" that may cause stomach problems and headaches. It is usually boiled or mixed with cold water for the treatment of stomach pains, constipation, and high blood pressure. As an enema it is used for constipation and as a purgative. It is used as bathwater and as a poultice for the treatment of skin irritations and scabies. Mohalakane is often mixed with matalenyana for the treatment of kokoana, and with hloenya and hlokoane (*Pentascistis airoides*) for bile.

Moriana oa Kokoana (n.a.). The dried and crushed leaves are mainly used for the treatment of kokoana and as snuff for headaches. As an infusion it is used in the treatment of stomach pains.

Mosala Suping (Lithospermum cinereum). The roots are boiled and used to gargle with for the treatment of swollen glands. For scabies and sores and roots are crushed into a powder and mixed with horse or sheep fat. This mixture is applied daily on the affected areas.

Phate-Ea-Ngaka (Chenopodium Malva parviflora). The roots and leaves are usually made into an infusion to treat colds and coughs (often used together with lengana). As an infusion it is also used for the treatment of bile.

Poho-Tsehla (Xysmolabium undulatum, Malva parviflora). The roots and leaves are commonly made into powder and used as snuff for the treatment of headaches and blocked nose (it induces sneezing). The same powder is applied on broken teeth to relieve the pain. It can also be used in cases of kokoana by mixing the powder with small amounts of cold water and applying it in the anus, eyes, ears, and, nose.

Sesepa Sa Linoha (Albuca trichophylla). As an infusion it is commonly used for stomach pains. The roots are often boiled by themselves or combined with lesoko (Alepidea amatymbica) for the treatment of cough and colds. It can also be made into powder and used in cases of kokoana.



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